



# DETERMINANTS OF FOREIGN INSTITUTIONAL INVESTORS' INVESTMENT AND ITS EFFECT ON SENSEX MOVEMENT- A QUARTERLY APPRAISAL

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## ABSTRACT

Indian capital market is vast destination and attracts investors for Investments. The Indian market is steadily growing and had allured domestic investors' community and foreign investors group in the past. India is a favourite investment place for Foreign Institutional Investors. Foreign institutional Investors are the investors who invest their fund in the recipient country and who are registered outside country. In this research study, it is an attempt made to describe or moreover explain the impact and extent of foreign institutional investors in Sensex movement. In General meaning of foreign institutional investors are referred as an entities which are companies or firms, registered outside India investing in the financial or capital market of India. Foreign Institutional Investors must register themselves with the Securities and Exchange Board of India (SEBI) to make participation in the capital market. One of the major market regulations pertaining to Foreign Institutional Investors involves placing limits on Foreign Institutional Investors ownership in Indian Companies. They can make investment in a portfolio of shares and deposits. Foreign Institutional Investors invest their major source of money in the issue of Participatory Notes (P-Notes), or which is sometimes called Offshore Derivatives.

There are nearly 1484 Foreign Institutional Investors and more than 38 Foreign Brokers registered to Securities and Exchange Board of India (SEBI). In this present paper we probe into relationship between capital market movement with reference to Sensex and these investors, we often hear that whenever there is a rise in stock market, it is due to Foreign Institutional Investors' investment and there is a decline in stock market, it is due to withdrawal of money by Foreign Institutional Investors.

**KEYWORDS:** FIIs, P-Notes, Stock-Market/Capital Market, NSE, SEBI etc.

## BOMBAY STOCK EXCHANGE (BSE):

Bombay Stock Exchange is one of the leading and the very old stock exchange in India and it is also at the Asia level. In 1875, Bombay Stock Exchange was formed and established with the formation of "The Native Share and Stock Brokers' Association". BSE has been active stock exchange with registering highest amount of listed securities in India. Nearly 72% to 82% of all corporate securities transactions in India have been done alone in BSE. Companies those which have made trading on BSE were recorded nearly 3,049 by March, 2006. BSE is designated as a national stock exchange as the BSE has started allowing its members to set-up computer terminals outside the city of Mumbai (former Bombay). Bombay Stock Exchange is the sole stock exchange in India which is provided permanent recognition by the government.

BSE has been given the status of a fully-fledged public limited company along with a new name as "Bombay Stock Exchange Limited" in 2005 The BSE has done its activity through computer based system and its trading system by introducing BOL (Bombay on Line Trading) since March 1995. BSE is operating BOLT at 275 cities with 5 lakh (0.5 million) traders a day. Average daily turnover of BSE is near Rs. 200 crores.

## Some facts about BSE are:

- Equity Derivatives has been first launch by Bombay Stock Exchange, Free Float Index, and USD adaption of BSE Sensex and Exchange facilitated Internet buying and selling policy.
- ISO authorization has been first adopted by Bombay Stock Exchange in India for supervision, clearance & settlement.
- Private Service has been first announced and launched by Bombay Stock Exchange in India for economic training.
- Bombay Stock Exchange's On-Line Trading System has been felicitated by the internationally renowned standard of Information Security Management System.

## DEFINITION OF FOREIGN INSTITUTIONAL INVESTORS:

SEBI has defined the term Foreign Institutional Investors as follows;  
"Means an institution established or incorporated outside India which proposes to make investment in India in securities. Provided that a domestic asset management company or domestic portfolio manager who manages funds raised or collected or brought from outside India for investment in India on behalf of a sub-account, shall be deemed to be a Foreign Institutional Investor."

Foreign Investment refers to investments made by residents of a country in financial assets and production process of another country.

## OVERVIEW OF FOREIGN INSTITUTIONAL INVESTORS:

In September 1992, India has made some stock market reforms and invited foreign institutional investors in India to invest in Indian stock market. In 1993, Indian has received Portfolio Investment from Foreign Institutional Investors in equities. It has become the route of foreign institutional Investors in Indian for Foreigners. At the beginning there were terms and conditions which restricted many FII to invest in India. But in the course of time, in order to attract more investors, SEBI has simplified many terms such as:-

- The ceiling for overall investment of FII was increased 24% of the paid up capital of Indian company.
- Allowed foreign individuals and hedge funds to directly register as FII.
- Investment in government securities was increased to US\$5 billion.
- Simplified registration norms.
- Meaning of Foreign Institutional Investor (FII)**, in layman language refers to the non local or foreign investors when invest in the capital market of a country. In other words, the term FII is most commonly used in India when a foreign entity i.e. an entity which is established or registered outside India proposes to make investment in the capital market of India. Foreign Institutional investors are also known as International institutional investors required to register themselves with the Security and Exchange Board of India (SEBI) for the sake of making participating in the Indian capital market.

Following entities and funds are eligible to get registered as Foreign Institutional Investors in Indian Capital Market.

- Pension Funds
- Mutual Fund
- Insurance Companies
- Investment Trusts
- Banks
- University Funds
- Endowments
- Foundations
- Charitable Trusts / Charitable Societies

Further, Following entities proposing to invest on behalf of broad based funds are also to get registered as Foreign Institutional Investors.

- Asset Management Companies
- Institutional Portfolio Managers
- Trustees

#### • Power of Attorney Holders

The Registration Fee for FII Applicants is 5000 US Dollar. The Validity period of FII Registration is for 5 years. After expiry of 5 years, the registration needs to be renewed.

#### LITERATURE REVIEW:

In India, the purchase of domestic securities by FIIs first allowed in September 1992 as part of the liberalisation process that followed the balance of payment crisis in 1990-91. Now days, a significant portion of Indian corporate sector's securities are held by Foreign Institutional Investors, such as pension funds, mutual funds and insurance companies.

**Chakrabarti (2001)** made Granger Causality tests pair wise between FII inflows and returns on the BSE National Index. He has examined that portfolio investment from FIIs was more an influence than a cause of market returns in India. Furthermore, using the same monthly data, Chakrabati (2001) regressed FII flows on stock returns and the other relevant variables identified in the literature, and showed that market returns became the sole driving force behind FII flows into India following the Asian financial crisis.

**Mukherjee, Paramita, Suchismita Bose, and Dipankor Coondoo, (2002)** supplemented and developed the empirical research by Chakrabati (2001) using extended daily data for the period of 1 January 1999 to 31 May 2002. They first run a pair wise Granger-causality test, and confirmed the result of Chakrabati (2001) that there was a unit-directional causality from Indian stock returns to FII flows during their sample period. Then they estimated the impacts of lagged stock returns & other relevant variables such as industrial production, call money rate and exchange rate on FII flows, and found that market returns are perhaps the single most important factor determining FII flows.

**Gordon and Gupta, (2003)** on the portfolio flows in India and the influence of domestic fundamental factors; it was found that there exists a strong impact of the domestic fundamentals on the investment flows into India. They used the data from September 1992 till October 2001 and applied regression model and unit root test. It was concluded that the portfolio flows to India are small, compared to other emerging markets and also less volatile. The combination of domestic, regional and global variables are important in the determination of the portfolio flows into India.

**Batra Amita (2003)**, in his research work has analyzed the trading behaviour of FIIs and their impact of trading biases upon stock market volatility. It was found that there is a strong evidence for the fact that FIIs on daily basis have been positive investors and trend chasers at the aggregate level. But there seem to exist no evidence of positive feedback trading on monthly basis. The research work also indicates that the foreign investors have a tendency to herd together in their trading activity in India. The trading behaviour/biases of the FIIs do not appear to have a destabilizing impact on the equity market.

**Rakshi, Mihir (2006)**, has argued that, far from being healthy for the economy, FIIs inflows have actually imposed certain burdens on the Indian economy. Sudden fall and sudden increase in FIIs in India has raised several issues before the policy makers regarding the real implications of FIIs. Impact of FIIs can largely be observed at: (1) stock market (2) exchange rate and (3) forex reserve

**Makwana, Chetna R. (2009)** analyzed prime facia that the FIIs influence market. It may be concluded that the FII has positive relation with the volatility of Indian stock market. Both move in the same direction. Now to measure or estimation of volatility and return of Indian stock market it is require to measure the volatility pattern of FII flows, which is critical in terms as it does not follows the pattern.

**Dhwani Mehta (2009)**, in her research work titled 'A Study: FII Flows in India' the Indian stock markets have been experiencing humungous amount of FII flows. This has affected small investors thinking that markets are rigged. For the good news to Indian investors it has been established that out of all the factors, it is basically the performance of Indian stock markets vis-à-vis other emerging and developed markets that probably may cause returns and not the other way round.

#### SCOPE OF THE STUDY

FII has made steady growth from 1st generation economic reform i.e. since liberalisation. Foreign capital funds have got an acknowledgement as it is an important source of funds for meeting country's economic development, and it has made integration with global financial markets. India is being considered as pioneer destination for foreign investment so in order to encourage foreign funds in India, stock markets of India have made attempt to attract FII Investment, leading Stock market of India BSE has saw largest ever fall in record in January 2008, it has made everyone in anxiety whether FII would put India in miserable condition.

Foreign portfolio inflows through FIIs, in India, are important from the policy determination, especially when India is one of the leading capital markets in Asia. The present research study focuses on FII investment pattern in the Indian capital market especially BSE Sensex 2011 to 2015 quarterly basis. It examines

the factors affected to investment decisions of FIIs. The Foreign Institutional Investors (FIIs) have emerged as important players in the Indian equity market in the recent past. This research paper makes an attempt to understand whether there exists a relationship between FII and Sensex movement.

#### OBJECTIVES OF THE STUDY:

- To study the trends and patterns of foreign institutional investors' investment in India.
- To observe relation between FIIs & Sensex movement.
- To examine effect of FII investment on Sensex movement.

#### HYPOTHESIS:

##### Null Hypothesis (Ho):

- A. There would be no significant difference in FII investment flow in India during the period of study.
- B. There would be no significant relationship between sensex and FII investment flow during the period of study.

##### Alternate Hypothesis (H1):

- A. There would be significant difference in FII investment flow in India during the period of study.
- B. There would be significant relationship between sensex and FII investment flow during the period of study.

#### DATA COLLECTION AND RESEARCH ANALYSIS:

Secondary Data is collected through published sources like Government publication, reports on projects, research papers of educational Institutions, organizations and various government official websites. In this research data is collected from official website of BSE and SEBI. Last 5 year data is being used for research.

#### Tools Used for Research

##### (1) Regression Analysis Model for FIIs Investments and BSE Sensex.

Regression analysis Model employed for measure the significance effect of independent variable FIIs Investments on dependent variable Sensex movement. Following different sections show the regression analysis for FIIs Investments and Sensex.

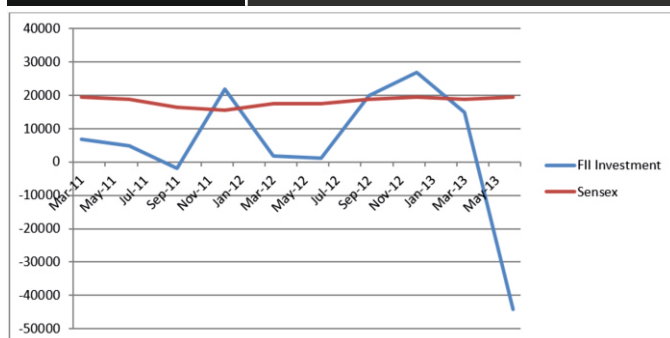
##### (2) t-test for significant relationship variables of FIIs Investments and Sensex Movement:

This test determines how perfectly regression model fits for the data; t-test is also one important statistical tool which tests significance of correlation. It helps us to determine whether the observed correlation coefficient indicate significant correlation in population or not. Following formula used for t statistics to find out significant relationship between two variables.

#### Data Interpretation:

**Table: 1 FII Investments and Sensex movement:**

Year	FII Investment	Sensex	Year	FII Investment	Sensex
Mar-11	6882.6	19445.2207	Sep-13	7379	19379.76953
Jun-11	4883.5	18845.86914	Dec-13	21376	21170.67969
Sep-11	-1866	16453.75977	Mar-14	31663	22386.26953
Dec-11	21872.3	15454.91992	Jun-14	30705	25413.7793
Mar-12	1792.5	17404.19922	Sep-14	20972	26630.50977
Jun-12	1180.5	17429.98047	Dec-14	12225	27499.41992
Sep-12	19883.8	18762.74023	Mar-15	20723	27957.49023
Dec-12	26791.9	19426.71094	Jun-15	-1608	27780.83008
Mar-13	14919	18835.76953	Sep-15	-5784	26154.83008
Jun-13	-44162	19395.81055	Dec-15	-6537	25838.71094



**Graph: 1 FII Investments and Sensex movement:**

Table and graph No. 1 reveal that investors are investing more in equity in comparison to debts. So following point can be concluded by analyzing above data, in 2012, starting year of UPA –second term, highest ever net investment is observed in FIIs. In 2011-12, highest investment in equities observed and which is considered as landmark of the great years for investors with partial growth in net investment i.e. 146438. Highest ever FII Investment measured in 2012. But there is down fall has been measured in the year of 2013 highest level of withdrawn has been made by FIIs. For new hope is arising as NDA first time come in power with full majority. They are Try to provide good environment to foreign institutional investors which is good sign for shareholders as well as Indian Economy.

**Table: 2 Coefficient of correlation and determination between Sensex movement and FIIs Investments.**

Correlation and Regression Analysis	
Coefficient Correlation r	0.1
R Square	0.01
Adjusted R Square	-0.044
Standard Error	4288.14
Observations	20

**Table: 3 t-tests for relationship between FII investments and Sensex movement**

	Coefficients	Standard Error	t Stat	P-value
Intercept (Y)	21357.71	1090.64	19.58	1.385
FII Investment (X)	0.0246	0.0567	0.434	0.669

#### Findings:

From the above Table 2 shows that FII and Sensex have poor or almost negligible correlation. This shows that FIIs investments and sensex are not positively correlated i.e. higher the FIIs investments, the lower be sensex and hence good performance of the sensex does not depends upon FII Investment.

Further, the extent of the enhancement in sensex by FIIs flows can be explained by employing regression analysis. It can be observed from the above table 2 that all explanatory variables, taken together establish a relationship nearly 0.09% because the coefficient of determination  $R^2$  is 0.01 of the total variables in the quarterly Sensex movement. This implies that whatever changes have taken place in the quarterly performance by sensex, the FIIs investments are responsible up to 0.09%. This implies that there are 99.91% of many other macro economic factors have influence the quarterly sensex movement. A comparison of  $R^2$  is 0.01 with the adjusted  $R^2$  -0.044 shows that the adjusted  $R^2$  reduced the overall proportion of variation of the dependent variable accounted for by the independent variables by a factor of 0.054 by 5.4%.

(2) There is not significance relation between FII and sensex. T-test provides perfect measurement FII and sensex correlation coefficient. Beta value has been also considered and obtained i.e. 0.02 which implies that any change in FII brings 0.02 times of it changes in sensex, so the above table suggests that there is no direct relation between two variables, for every unit changes in  $\beta$  (FIIs Investments) there is 0.02 unit change in Y (Sensex). The value of  $\alpha$  (Alpha) is 21357.71 which show that the other factors are more responsible for this relationship. It has been also seen from p-value is 0.66 which is more than significant value of 0.05. This can be clearer from the t-statistics value, t-value shows absolute relationship between two variables. The t-value calculated is 0.43 and significant value is 0.66 which is more than 0.05 which implies that there is not significant relationship between FII Investments and Sensex movement. With the given data and by applying statistics table at 95% confidence level, the results show acceptance of null hypothesis, which implies that there would be no significant relationship between Sensex movement and FII investment flow during the period of study.

Such Findings of the study show that Sensex not solely being affected by FII Investment, but some other macro economic factors are also affecting. Maximum FII investment is made from USA only. FII Investment makes market efficiency. FII investments also guide to economic growth of country since they bring the much needed capital.

#### Conclusion:

From the above study, it can be concluded that FIIs has not significant impact on Sensex movement. The null hypothesis of research article is accepted here that there would be no significant difference in FII flow in India during the period of study. There would be no significant relationship in capital market indices and FII flow during the period of study. The correlation coefficient between FII and Sensex for both analyses is not positively correlated. Same points are included by regression analysis that there is no significant relationship exist between FII Investment and sensex movement. By using t-test even we have appropriate idea whether FII investment makes effect on sensex points, which shows low or weak it means that there is no significance relationship between FII investment and sensex.

Such result would more proper if the data is taken for week basis which gives clear picture regarding FII Investment and sensex relation. There are many other factors are affecting sensex other than FII Investment. No doubt inflow of foreign capital brings foreign currency (\$) into the country which contributes towards increase in wealth of shareholder but large portion of capital in stock market comes through domestic route. Thus it is important for the country to encourage the investment with in the country along with the foreign investment because FII look for income if the economy grows they entered into the stock market of the concerned economy but exit from the market in the same speed as they entered. Also global and domestic activities are responsible for change in the FII investment pattern.

Though the Trends of FII is positive as per the trend analysis i.e. foreign investors are looking forward to invest in India. NDA come up in the power with full majority in General Election (Loksabha Election) – 2014, which provides stable govt. It is healthier and beneficial for the investors as well as economy. But newly elected NDA Govt is proposed to levy MAT on book profit earned by the FII, so it may put negative impact on the investment of FII in India, but still this matter is before Shah Committee. Shah Committee will submit its report soon govt whether to impose MAT on FII profit or not. There is recent news that Central Govt. of India does not make any kind of Changes in the law regarding FIIs investment and tax effect.

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